RULE CHANGE REQUEST

Minimum System Load reserve service

Request to make a rule change

Name and address of person making the request

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Overview of the person making the request

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia, representing nearly 1,000 of the leading businesses operating in renewable energy, energy storage, and renewable hydrogen. The CEC is committed to accelerating the decarbonisation of Australia's energy system as rapidly as possible while maintaining a secure and reliable supply of electricity for customers.

Summary of rule change request

This rule change request proposes the introduction of a new market ancillary service – the minimum system load (MSL) reserve service. This would be a co-optimised ancillary service for the provision of defined volumes of load response to help AEMO manage the system security issues associated with minimum system load events.

MSL is projected to become a material issue for system operability and security. AEMO has identified that system security issues related to MSL conditions may arise as early as 2025 under unplanned outage conditions and by 2027 under system normal conditions.[1]

AEMO has advised these MSL conditions can lead to material system security issues if not addressed. We understand these are primarily related to exceedance of transient stability limits on interconnectors due to changed power flows, following a load contingency. At present, AEMO identify these issues as problematic during outage conditions, however this may extend to system normal in the medium term.

AEMO have highlighted a range of short-term emergency solutions that may be considered to address this issue, including use of the emergency backstop mechanisms, shedding reverse feeders or changing distribution system voltages. AEMO may also direct utility scale energy storage systems – primarily utility battery energy storage systems (BESS), and/or issue Type 1 transitional contracts for existing utility BESS assets.

The CEC considers that none of these options represent a desirable outcome, for either AEMO, governments, consumers or industry.

An open, competitive, market-based mechanism represents the optimal solution to the MSL problem. This rule change request therefore proposes the introduction of a new 'MSL Reserve Service' – a co-

[1] AEMO, *Supporting secure operation with high levels of distributed resources*, Q4 2024, p.30

optimisable market ancillary service that can provide specific volumes of load response over specific time periods, allowing AEMO to more effectively manage system security risks during a minimum system load period.

Statement of issue and materiality assessment

What problems are caused by minimum system load?

The National Electricity Market is currently going through a period of significant transition. A key trend in the transition is the rise of distributed PV (DPV) which is driving falling operational demand, coupled with the slow pace of transitioning system security requirements away from reliance on synchronous (predominantly coal) generating units.

The Minimum system load issue can be described as the confluence of these two key trends.

DPV has been a game changer for Australian households, providing abundant, low-cost power and accelerating Australia's efforts to decarbonise. From a grid perspective, DPV uptake has had the effect of firstly markedly reducing the amount of power consumed from the grid during daylight hours, particularly around the peak solar period of late morning to mid-afternoon. In some regions, the amount of DPV uptake is such that power is flowing back into the system during these periods, as households export their surplus generation into the grid.

All forecasts are for DPV uptake to continue to grow. Behind the meter BESS integration with DPV offer real opportunities to help coordinate and manage the output of DPV. Over the long term, we consider this orchestration, and coordination will offer new pathways to help manage MSL, including by enabling CER assets to participate in energy and ancillary service markets – including an MSL Reserve Service.

On the other side of the ledger, large coal generating units also inject large volumes of (very inflexible) power into the power system. As synchronous generators, they also provide critical system services like inertia, system strength and voltage control which are currently provided as a by-product of electricity generation. AEMO currently requires a certain number of these coal generating assets to be running at any given time, to maintain the overall stability of the power system. This is down to maintaining the overall operability of the power system as well as delivery of specific essential system services.[2]

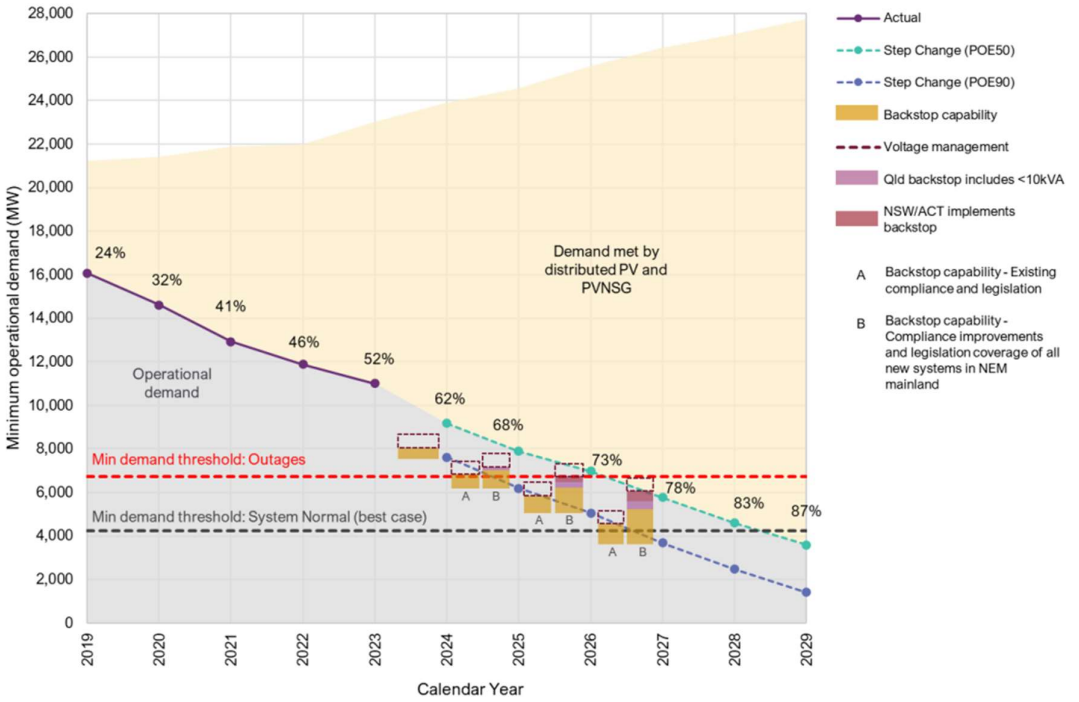
An issue arises because these synchronous coal generating units are required to run at a minimum safe operating level (MSOL) – basically, their boilers must be kept at a minimum level of pressure to maintain safe and stable operation. This means that, in the absence of specialised bypass mechanisms, the generator must produce a minimum level of active power (megawatts, MW) to remain at MSOL.[3]

The key issue is therefore an overabundance of power (supply), due to the combined output of DPV and coal generators, relative to load (demand). Any excess of power supply, relative to load demand, creates the risk of instabilities and operational issues on the power system.[4] If unmanaged, these potential instabilities can cause major failures on the power system, risking major blackouts for customers.

[2] The CEC understands this to be a particularly problematic issue in Victoria, where a specific number of synchronous units are required to be in operation at any given time to provide voltage support services.
[3] These synchronous unit requirements are likely to be a feature of NEM power system operation for some time. While there are various reforms underway to reduce reliance on minimum synchronous combinations, this is likely to require quite some time to become standard AEMO operational practice.
[4] The specific instability identified by AEMO relates to a post contingent change in power transfer during an MSL period that gives rise to breach of transient instability limits on a major interconnector. While we have not been able to find a publicly available reference to this specific power system security risk, it was described in slides presented to industry by AEMO in late 2024. These can be provided to the AEMC if needed.

AEMO has found that it is already in a state of the world where it does not have enough operational demand to match utility-scale power generation. As shown in the figure below, the power system may be subject to instabilities under outage conditions as early as 2025, and under system normal conditions between 2026 and 2028.

Figure 1: Minimum demand in the NEM



Source: AEMO, Supporting secure operation with high levels of distributed resources, Q4 2024.

How is AEMO responding to manage MSL?

AEMO is exploring multiple options to address the system security risks brought about by the MSL problem. The first of these relates to the develop of 'back stop' mechanisms, which are designed to limit export of DPV (and consumer energy resources (CER) more generally). The CEC has led extensive advocacy in regards to the use of backstop mechanisms and has proposed a raft of reforms to find a better way to integrate CER.

The CEC considers that backstop mechanisms should remain exactly that – last resort mechanisms that should be used in emergencies only. Increased reliance on backstop mechanisms devalues the investments made by energy consumers and is likely to lead to less efficient utilisation of these assets.

The CEC also notes there are several reforms on foot that are designed to improve the utilisation of CER, which should help reduce the need for AEMO to rely on the backstop mechanisms. The AEMC should consider the intersections between this rule change request and these other reform processes, particularly the development of 'dispatch mode' through AEMO's Integrating Price Responsive Resources into the NEM reforms (IPRR).

The rule change request is designed to operate in conjunction with and to complement these important reforms to the CER frameworks. We consider that the introduction of a new market ancillary service for

an MSL load reserve should provide both additional pathways to market for CER, while also reducing AEMO's need to rely on backstop mechanisms.

This rule change request is therefore proposed as an alternative to some of the other mechanisms that AEMO have adopted or are proposing to manage MSL, being the issuance of directions to utility scale energy storage assets, especially utility scale battery energy storage systems (BESS), and / or the writing of Type 1 transitional contracts with BESS.[5]

AEMO has proposed to issue National Electricity Rules 4.8.9 directions to BESS to discharge storage systems, to enable energy storage 'headroom' which would be available for central control to charge when required to increase overall system load. Compensation would potentially be available to be claimed under the relevant directions compensation frameworks.

While these directions appear currently targeted towards BESS, other forms of energy storage are equally likely to be affected.

Beyond issuance of directions, we also understand AEMO is considering use of Type 1 Transitional contracts, as per the Transition Plan for System Security regulatory frameworks, to help secure the critical system services required to manage minimum system load thresholds.

The current approach of issuing 4.8.9 directions and / or the use of Type 1 contracts is not fit for purpose, as it poses material risks to investment in new energy storage assets

The CEC considers there are both material investment and operational consequences that will flow from AEMO either issuing directions to BESS to manage MSL, or by relying on the use of Type 1 contracts.

4.8.9 Directions

The use of clause 4.8.9 directions to manually change energy storage dispatch would be problematic from an investment and operational perspective. There are several reasons why this approach is unsuitable in the medium to long term, including:

- For BESS with a tolling agreement or other contractual arrangements in place, use of directions by AEMO will likely result in the BESS market participant being at risk for not honouring its contractual positions. This could then lead to contentious legal issues between the BESS owner and off-taker who consider they had purchased the right to dispatch the BESS to maximise their revenues. Equally the cost of striking new contracts would need to increase, to include a risk premium for these potential directions.
- For merchant BESS, the asset faces dynamic operating costs where there is not a consistent "cost" of charging or discharging, which itself varies based on market conditions. The compensation regime is unlikely to be satisfactory for these assets. As just one example, AEMO's directions to charge/discharge the BESS may have warranty implications (such as degradation and cycling limits) which are currently not considered in the compensation framework. Compensation will also be time consuming to negotiate.
- The risk of directions may also have adverse consequences with project financial arrangements due to a potential timing mismatch between contract settlements (generally weekly per NEM calendar) and the payment of AEMO's compensation revenues. Lenders may request additional working capital or reserve accounts to cover cashflow timing gaps, acting as a financial disincentive to BESS investment.
- On an operational front, we also consider directions could give rise to reliability risks, associated with reductions in available supply. For example, in circumstances where storage systems might

[5] As noted, AEMO has also identified solutions such as shedding reverse feeders or changing distribution network voltages as other potential solutions to manage system risks during MSL periods, although AEMO has also stated these solutions may be less desirable than directions issued to BESS. We consider that these options should remain as a last resort, with market-based solutions used instead.

have been prevented from recharging and there is insufficient time available post any 4.8.9 Direction event to allow adequate recharging of these systems ahead of system peak demand periods.

The risk of AEMO manually intervening and changing the availability of these BESS creates a significant and material risk for BESS (and other registered energy storage) investors and developers. Such risks damage the business case for energy storage, as developers and off takers will lose confidence that the asset can be used as a flexible, market-based solution to charge and discharge when prices are optimal. The will likely either increase the cost of new BESS developments, or potentially dissuade investors from backing BESS projects, at precisely the time when the NEM power system and market require accelerated investment in dispatchable energy storage solutions.

Type 1 transitional contracts

Regarding the use of Type 1 transitional contracts, the CEC considers these contracts would likely favour incumbents. Put another way, unless a Type 1 contract was struck before a project hit final investment decision, it would not support a new BESS investment case.

More generally, the CEC does not consider these contracts to be a viable long-term solution owing to their short tenor of three years, as well as the opaqueness of pricing associated with these kinds of NMAS solutions.

The longer-term consequences of these investment effects are material and extend beyond the business case impacts on individual BESS and energy storage developers.

Energy storage is poised to provide a range of system services which is hampered with the overuse of directions and type 1 contracts

Energy storage is rapidly emerging as an asset class that will provide material security, price and reliability benefits to customers. BESS can provide low-cost system strength, inertia and SIPS services, all of which markedly enhance system security and resilience. Many of these services also contribute to improved reliability outcomes and increase network utilisation. However, the management of storage levels to provide these services is critical to efficient BESS operation.

BESS help deliver more efficient price outcomes, by complementing VRE generation and allowing temporal shifting of energy.

Anything that delays the rollout of BESS, or creates significant incentives to change operational behaviour, therefore runs counter to the delivery of these significant reliability, security and price benefits for consumers.

On this basis, the CEC considers both the underlying issue of MSL, and the consequences of overuse of directions (and Type 1 contracts) to be sufficiently material to warrant a change to the NER.

Proposed solution

Description of proposed rule change

This rule change request seeks to address the MSL issue through the introduction of a new market based ancillary service – an MSL reserve service. The new service would pay a market participant on an individual resource basis to provide a load response defined over a specific timeframe and volume (MWh).

A minimum system load response ancillary service would operate in a manner whereby any form of responsive load could bid to make plant dispatchable by AEMO during any trading intervals identified by AEMO where a minimum system load event was forecast to occur.

Market Participants would bid, or choose not to bid, into the MSL market one day ahead of time, the same as for the energy and FCAS markets. AEMO would at all times set and dispatch the MSL response requirement if required, and the market would bid and set the clearing price to meet AEMO determined requirements.

Storage systems or other loads participating in the spot market could be enabled and receive payment to reduce stored energy to provide 'load headroom'.

The assets registered to provide MSL would receive enablement instructions to hold that dispatchable load capacity through trading intervals determined as necessary by AEMO from a power system security perspective. This would be reflected through the total bid MW that the asset submits to AEMO.

When needed, AEMO would issue dispatch instructions to enable the required level of MSL response, and the relevant assets would then 'charge' as needed - or undertake other behaviours that have the effect of increasing apparent operational demand - when dispatched by AEMO to do so.

We anticipate this could operate in practice like the contingency FCAS framework whereby market participants are responsible to submit bids that they are capable of honouring.

MSL response providers would allow AEMO to dispatch their resource in any trading interval during any MSL declaration period, charging or discharging in accordance with a dispatch instruction issued by AEMO until the MSL declaration was terminated.

The MSL market would operate based on self-commitment and not necessitate the entire capacity of a resource to be bid in. AEMO would be able to aggregate capacity across multiple resources to meet its need, based on market participant bids to achieve the lowest cost outcome for consumers.

Relevant plant would receive an ancillary service payment for the enablement of the MSL response service. This would be payable whether or not an actual MSL event occurred– akin to an enablement payment in the FCAS market. Should a market participant's bid be accepted and no actual MSL response event occur, then the minimum system load reserve service provider would still be paid the MSL ancillary service market price for being enabled to respond if required to do so.

In some cases, AEMO would dispatch this service based on a latest time to intervene framework where the service provider required prior notice to facilitate service provision. Ie such as reducing storage energy levels in a BESS. This would be the latest time at which AEMO would need to dispatch the service provider to ensure procured response during the MSL declaration period.[6]

Price formation, dispatch and settlement could be operated in a manner similar to existing FCAS.

Prices for the provision of the new ancillary service would be set on a marginal basis, i.e. by the highest accepted minimum system load response bid during that trading interval, just as is the case for the energy and FCAS markets today. These assets would be paid or pay the prevailing energy market price when called upon for generation or charging.

The service could be operationalised via a centralised dispatch instruction - AGC or equivalent - or via an automated trigger signal.

Market participants would provide up to ten price and volume bid bands for dispatch of the minimum system load response ancillary service. We anticipate the price settings should align with the existing FCAS markets: price floor should be set at $0 and the price cap in line with the levels determined by the reliability panel.

This service is technologically neutral in that it could be provided by various solutions, including but not limited to:

[6] National Electricity Rule clauses 4.8.5A and 4.8.5B.

- Utility loads and bi-directional units which currently includes charging a utility BESS or utilising the scheduled load pumps at a pumped hydro energy storage station;
- Increasing a consumptive load, at C&I level or at residential level, by switching on or otherwise increasing power draw on any connected electrical equipment; and
- Switching off or otherwise changing the behaviour of a behind the meter generating resource to increase grid consumption.

An MSL resource market participant would continue to bid to dispatch the plant in accordance with the normal bidding processes, and normal market dispatch outcomes in the energy and FCAS markets would continue to apply until the point at which a MSL response requirement event is declared by AEMO. However, a market participant would at all times be capable of honouring its bids if called upon.

When AEMO determines MSL resources are required, the MSL bids would be co-optimised in NEM dispatch in a similar manner to FCAS contingency markets.co-optimised with and FCAS markets. In the lead up to forecast MSL periods for BESS, market participants may choose to discharge to create additional headroom in time for the MSL period.

If an actual MSL event occurred, AEMO would then determine, and dispatch MSL response providers as needed in accordance with the normal dispatch processes for energy and FCAS dispatch.

In effect, the MSL provider would provide AEMO with the ability to issue dispatch instructions to the level of the MSL bid that was enabled. based on the service providers offers This is the same as how AEMO has dispatch control of resources in the energy and FCAS markets.

This proposed rule change would result in a competitive, efficient and market-based approach to address the system security challenges created by MSL. Additionally, it would provide a transparent signal to market participants that can be clearly understood, and forecast across a range of time horizons, including operational and investment time horizons.

This MSL reserve service is intended to be fully co-optimised with existing energy and FCAS markets. The CEC acknowledges the complexities involved with co-optimising a new MSL service with the existing FCAS markets (particularly, around the intersection of the new service with the slow and/or delayed FCAS lower services); however, the design of the proposed service is intended to be external to the FCAS market and therefore able to be co-optimised with these markets.

In relation to the energy market, the expectation is that at peak MSL period, wholesale market prices will generally be expected to be negative. This will naturally incentivise MSL enabled assets to increase consumption when called upon. This same energy price signal should also incentivise virtual power plant operators to increase grid-supplied consumption of aggregated load (for example, pool pumps or electric hot water). What the new MSL reserves market provides is the ability for AEMO to have increased certainty that periods of increased consumption can be dispatched by AEMO to align with trading intervals that best support power system security.

The ancillary services market set out in this rule change has the potential to unlock other sources of dispatchable load that could help increase grid-supplied consumption during MSL periods. For example, incentivising a load customer with on-site generation to use the grid rather than self-consumption where the customer can see the benefit through lower electricity bills from their retailer, or through direct participation in the MSL service market themselves. Alternatively, solar PV generation could be paid to reduce exports, or turn-off – again where the customer can see the benefit through lower electricity bills or direct MSL service payment.

Changes to the NER required

This rule change request does not seek to outline all the details of the NER structures and technical details of how these new MSL reserve markets should be defined. We look forward to further suggestions, enhancements and details emerging from the AEMC's consultation and rule change process.

Generally, however, we propose to utilise the existing market ancillary services framework set out in clause 3.11.2 of the NER by introducing a new minimum system load response market ancillary service.

This NER clause currently only identifies frequency control market ancillary services; however, the CEC considers clause 3.11.2 to be an appropriate location under the NER to set out and implement a new minimum system load response market ancillary service.

In addition, a new category of condition termed a "*minimum system load*" condition is expected to be required under clause 4.8.4 of the NER. There is also the potential for AEMO to be required to produce "*minimum system load declaration guidelines*" equivalent to those developed for peak load periods in clause 4.8.4A of the NER.

Consequential changes to clauses 4.8.4B. 4.8.5, 4.8.5A and 4.8.5B may also be required to enable the implementation of, and reporting of the efficacy of, this rule change request.

The CEC also notes that demand forecasting that underpins AEMO's MSL declarations will be critical to effective MSL market function. That is, the minimum system load declaration guidelines will need to be clear about how a forecast MSL event will eventuate and be declared.

Other considerations

The CEC has engaged widely across industry and with AEMO in the development of this rule change request. During that process we have identified there is some diversity of opinion regarding:

- the underlying materiality / permanence of the underlying minimum system load issue;
- the range of potential solutions that could be adopted to address the issue; and
- the potential for a symmetrical energy reserve service

Below, we step through each of these and explain why we have selected our preferred option.

Permanence of issue

The CEC acknowledges that there are several variables that will determine whether MSL issues are structural in nature, and / or how long they will continue to affect the NEM power system. In our view, there is a high probability the drivers of this issue are unlikely to be entirely resolved in the medium term, while other solutions may take some time to be fully implemented.

For example, the underlying system security issue is based on the confluence of high levels of DPV output coupled with the aggregate MSOL of the synchronous generating units that AEMO currently relies on for maintaining operability of the power system (and specifically for voltage regulation in Victoria).

Unwinding these issues relies on the pace of development of several complex reform areas. As mentioned elsewhere in this submission, there is a large and important body of work underway to unlock the capability of CER to enable greater orchestration of these assets. The CEC is very supportive of this work and sees CER as a key asset class that will play a central role in resolving the MSL issue. However, as per the points made below regarding reliance on energy market signals to resolve MSL issues, there is no guarantee that price signals for energy consumption or reduction in DPV output by CER through the energy only market would necessarily align with power system operational requirements.

It's also not clear whether these frameworks will be in place in time to address the significant system security issues identified by AEMO. Any delays in the development of these new mechanisms – or changes in the degree of CER asset uptake and orchestration – will be relevant to how quickly, and if, the MSL issue can be resolved.

Efforts to reduce reliance on synchronous coal generators, or to reduce the significant amounts of active power they produce when running at MSOL, will take years to bring to fruition.

Similarly, while the system strength and inertia contracting frameworks are being implemented by AEMO and TNSPs, it will be many years before these assets are built and, more importantly, fully operationalised. We understand it will take some time for AEMO operators to become comfortable with these new solutions and allow for a meaningful reduction in reliance on synchronous generation minimum combinations.

Alternative solutions

There are a range of alternative solutions to the MSL issue that could be considered. The CEC has ruled out continued reliance on the directions framework given the negative impacts this has on investment confidence and the inefficiencies it introduces in dispatch and pricing outcomes. Directions should remain a last resort measure for AEMO.

In our view, alternative solutions that could be considered include:

Reliance on energy spot price signals: It has been suggested that energy spot price signals could be used to deliver sufficient incentives for load to be made available when needed. For example, the energy spot price could be set to the market floor price, perhaps on an ahead basis to drive a clear price signal for energy storage to respond to at that time.

The CEC acknowledges that NEM dispatch can provide strong signals for the energy consumption or supply to those market facing participants. An argument can therefore be made for using energy market price signals to deliver load reserve volumes at the correct time intervals to manage system security issues.

However, the current thinness of the load-side of the market, especially scheduled, controllable load, reduces the likelihood that such load reserves will necessarily be available when most needed in the market. This is exacerbated in scenarios where the energy spot price signals may last for several hours. Early on, the energy spot price may inadvertently deliver needed load response, however towards the end of the MSL period this may no longer be the case. For example, a 5-hour MSL event with a series of 2-4h storage may inadvertently manage the issue for the first 3-4 hours, but for the remaining hour could very well be insufficient.

We also consider there is a temporal coordination problem related to the availability of the load reserve needed to maintain the power system in a secure operating state, under specific low system load conditions. It would be operationally challenging to set energy market prices on an ahead basis, that were sufficiently granular to drive the specific outcomes needed by AEMO, without risking unintended consequences across the wider market.

This rule change request is designed to address this potential lack of temporal coordination by sending explicit price signals for the provision of load reserves at the specific points in time when this load is needed to manage specific system security issues.

Reliance on out of market solutions: Another option would be to utilise non-market solutions, such as a new RERT-like process or utilisation of Type 1 or 2 Transitional contracts.

Generally, the CEC considers that out of market structured procurement options are a poor substitute for an open, transparent market mechanism. Such contracts do not send effective investment signals and are subject to material uncertainty, given the monopsony nature of the procurer and/or the oligopolistic nature of the potential supply side of the service.

Furthermore, the Type 1 contracts currently being used by AEMO to address this issue are time limited to 3 years, while the Type 2 contracts appear unlikely to be applied by AEMO to address this issue. As identified above, these out of market contracts are also not conducive to supporting efficient investment outcomes.

Change definitions and procured volumes of regulation or contingency lower FCAS: While FCAS and MSL seek to address system security needs in the energy market, they are designed to address different needs. FCAS markets are designed to manage frequency stability, whereas MSL seeks to raise operational demand to keep the power system in a secure operating state. These are related but distinct needs.

Contingency lower FCAS would unlikely be a useful service to manage MSL as its questionable if a frequency deviation would occur to trigger the required response. In considering the use of BESS for such a response, there would also be no guarantee that storage levels would be aligned to deliver what could be a longer period MSL reserves response. For these reasons, the CEC considers that a new market ancillary service model remains the preferred approach to delivering a sustainable response to the MSL problem.

How the proposed rule contributes to the National Electricity Objective

We consider the proposed rule change contributes to the NEO by reference to efficient pricing and supporting security and reliability of the system.

Prices

There are many costs today that would be reduced, or eliminated, by the implementation of this proposed rule change, which would lead to more efficient price formation, including:

- The risk of directions being used to manage MSL issues will discourage new investment in energy storage. Over time, any reduction in new energy storage investment will reduce competition in the provision of dispatchable generation. Greater price volatility can be expected to follow, increasing average wholesale prices to inefficient levels.
- A tender system for MSL type 1 contracts is likely to result in poor price discovery and less efficient outcomes than that enabled under an open market ancillary services mechanism. We consider that the proposed ancillary services market is well designed to promote the most efficient price outcomes due to the larger pool of service providers that will be available to provide this service compared to the AEMO's current focus on service provision from energy storage systems alone.
- Better price discovery also supports more effective investment decisions over the long term, supporting long run dynamic efficiency.
- We also consider that an open, transparent market mechanism is likely to help reduce costs of capital, relative to an opaque contracting mechanism. This will flow through to lower overall wholesale costs over time.

System security and reliability

The proposed rule change enables AEMO to better manage operational risks under MSL conditions.

As discussed above, these key system security risks are associated with sudden changes in power flows caused by a contingency, which breach transient stability limits on the transmission network. These transient stability limits are particularly critical to manage within short timeframes, as failure to do so can lead to angle differences between electrical regions, in turn increasing the risk of loss of synchronism between regions. This can in turn lead to regional separation and cascading failure of generation, potentially resulting in major supply disruptions.

Enhancing AEMO's ability to procure targeted volumes of rapid load (energy consumption) response during MSL at risk periods will markedly improve its ability to manage these critical system security risks. Better enabling AEMO to procure the kind of fast acting load response provided by BESS or other resources will be particularly helpful to manage breaches of transient stability limits, which must typically be managed in shorter timeframes than breaches of oscillatory, voltage or thermal limits.

Additionally, the MSL reserve service will provide AEMO with a more targeted tool to better coordinate the required MSL reserve response.

Impacts on market participants and expected costs

The proposed rule change will create a new market ancillary service that will need to be paid for by those determined to be the beneficiary of this new market. As minimum system load is largely an outcome of underlying consumer demand, similar to the lower contingency FCAS market, the primary beneficiary are consumers, and the CEC recommends costs recovery from market customers.

There are several costs associated with the proposed rule change but are likely to be akin to that of the recently introduced "fast frequency response market" as it leverages the existing AEMO systems and market designs that are well understood by market participants and the AEMO. The first is the one-time cost involved to develop and implement the proposed MSL response market. The second would be the ongoing cost to administer the markets once they are up and running. Based on the costs for implementing the two new very fast contingency FCAS, the CEC considers that these costs would not be significant.